

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method of writing an optical disc having a multi-layered storage space comprising at least a first storage layer and a second storage layer below the first layer, the method comprising the step of:

_____preventing a write operation to a portion of said second storage layer located below a maiden portion of said first storage layer,

wherein said step of preventing a write operation to a portion of said second storage layer comprises:

_____defining said portion as being defective.

2. (Currently Amended) ~~A The method according to~~ as claimed in claim 1, wherein writing to the second storage layer is prevented until the first storage layer has been completely written.

3. (Currently Amended) ~~A The method according to~~ as claimed in claim 1, ~~comprising wherein said method further comprises the step of:~~

_____allowing a write operation to a portion of the second storage layer if a sufficiently large portion of the first storage layer, overlying said second storage layer portion, has been written at least once, said portion of the first storage layer being smaller than the total first storage layer.

4. (Cancelled).

5. (Currently Amended) ~~A The method according to as claimed in claim 41,~~ wherein a distinction is made between truly defective storage blocks and storage blocks which are merely temporarily defined as being defective.

6. (Currently Amended) A method of formatting an optical disc having a multi-layered storage space comprising at least a first storage layer and a second storage layer below the first layer, in which access to the second storage layer is through the first storage layer, the method comprising the steps of:

[[-]] defining logical disc addresses for logical blocks of the storage space;

[[-]] defining a reserved storage space in the storage space;

[[-]] defining a defect list and storing the defect list in a predetermined portion of the reserved storage space; and

[[-]] incorporating into the defect list addresses of all blocks which are physically located in the second storage layer irrespective of whether these blocks have any defects.

7. (Currently Amended) ~~A The formatting method according to as claimed in claim 6, also comprising~~ wherein said method further comprises the steps of:

[[-]] defining a defect type list and storing the defect type list in a predetermined portion of the storage space, preferably said predetermined portion being a portion of the reserved storage space; and

[[-]] writing into the defect type list, in respect of the blocks which are physically located in the second storage layer, a virtually defective code indicating that these blocks are only virtually defective.

8. (Currently Amended) ~~A The formatting method according to as claimed in claim 6 or 7, also comprising wherein said method further comprises the steps~~ step of:

[[-]] writing disc address information regarding the relation between physical disc addresses and logical disc addresses into a predetermined portion of the reserved storage space.

9. (Currently Amended) A multi-layered optical disc having a multi-layered storage space comprising at least a first storage layer and a second storage layer below the first storage layer, in which access to the second storage layer is through the first storage layer, the disc containing a defect list in a predetermined portion of a reserved storage space, the physical disc addresses of all blocks which are physically located in the second storage layer and which are located below a maiden portion of said first storage layer all being incorporated in said defect list irrespective of whether these blocks have any defects.

10. (Currently Amended) ~~A The multi-layered optical disc according to as claimed in claim 9, also containing wherein said multi-layered optical disc further contains~~ a defect type list in a predetermined portion of the storage space, wherein, in respect of those blocks which are physically located in the second storage layer and which are located below a maiden portion of said first storage layer, the defect type list contains a virtually defective code indicating that these blocks are only virtually defective.

11. (Currently Amended) ~~A The multi-layered optical disc according to as claimed in claim 9 or 10, also containing wherein said multi-layered optical disc further contains~~ disc address information regarding the relation between physical disc addresses and logical disc addresses in a predetermined portion of the reserved storage space.

12. (Currently Amended) A disc drive system, capable of controlling a rotating means and a light beam generating means of an optical disc drive, suitable for writing a multi-layered optical disc having a multi-layered storage space comprising at least a first storage layer and a second storage layer below the first layer, the disc drive system being adapted to perform a formatting operation in accordance with ~~any of the claims 6 to 8~~ claim 6.

13. (Currently Amended) A disc drive system, capable of controlling a rotating means and a light beam generating means of an optical disc drive, suitable for writing a multi-layered optical disc according to ~~any one of the claims 9 to 11~~claim 9, the disc drive system being adapted to read the defect list from said multi-layered optical disc and to communicate the defect list to a file system.

14. (Currently Amended) ~~A The disc drive system according to as claimed in claim 13, wherein said multi-layered optical disc further contains a defect type list in a predetermined portion of the storage space, wherein, in respect of those blocks which are physically located in the second storage layer and which are located below a maiden portion of said first storage layer, the defect type list contains a virtually defective code indicating that these blocks are only virtually defective, and wherein said disc drive system is~~ also adapted to read the defect type list from said multi-layered optical disc and to communicate the defect type list to a file system.

15. (Currently Amended) ~~A The disc drive system according to as claimed in claim 13 or 14, wherein said multi-layered optical disc further contains disc address information regarding the relation between physical disc addresses and logical disc addresses in a predetermined portion of the reserved storage space, and wherein said disc drive system is~~ further adapted to read the disc address

information from said multi-layered optical disc and to communicate the disc address information to a file system.

16. (Currently Amended) ~~A-The~~ disc drive system according to any one of the claims 12 to ~~15~~14, wherein the disc drive system being is adapted to check, after having written a maiden portion of said first storage layer, whether said first storage layer has been written completely, to maintain the defect list if said check reveals that said first storage layer has not yet been written completely and, alternatively, if said check reveals that said first storage layer has been written completely, to remove from said defect list all logical addresses of blocks which are physically located in said second storage layer.

17. (Currently Amended) ~~A-The~~ disc drive system according to any one of the claims 12 to ~~15~~14, wherein the disc drive system being is adapted, after having written to a maiden portion of said first storage layer, to remove from said defect list physical disc addresses of blocks which are physically located in a portion of said second storage layer located below said written maiden portion of said first storage layer.

18. (Currently Amended) ~~A-The~~ disc drive system according to as claimed in claim 17, wherein the disc drive system being is adapted, when calculating which physical disc addresses are to be removed from said defect list, to take into account various

properties of the multi-layered optical disc and of a disc drive concerned.

19. (Currently Amended) ~~A The disc drive system according to as claimed in claim any one of the claims 16 to 18, wherein said disc drive system is~~ adapted to read the defect type list from said disc, and is also adapted, when determining which physical disc addresses are to be removed from said defect list, to take into account the codes stored in the defect type list, such that blocks which are truly defective are maintained in the defect type list.

20. (Currently Amended) A file system, designed for communicating with a disc drive system of an optical disc drive, and designed for handling the writing of user files to the disc and the reading of user files from the disc, the file system being provided with a memory and being adapted to receive from a disc drive system according to ~~any one of the claims~~ claim 14 to 19, a defect list and to store this defect list into said memory, the file system also being adapted to take the defect list into account when choosing logical disc addresses in response to a command to store a file.

21. (Currently Amended) ~~A The file system according to as claimed in claim 20, wherein said multi-layered optical disc further contains disc address information regarding the relation between physical disc addresses and logical disc addresses in a~~

predetermined portion of the reserved storage space, and wherein
said disc drive system is further adapted to read the disc address
information from said multi-layered optical disc and to communicate
the disc address information to a file system, and wherein the file
system is also adapted to receive from a ~~the~~ disc drive system disc
address information and to store this disc address information in
said memory, the file system also being adapted to take the disc
address information into account when choosing logical disc
addresses in response to a command to store a file.

22. (Currently Amended) ~~A~~ The method according to as claimed in
any one of the claims 1 to 3, wherein said step of preventing a
write operation to a portion of the second storage layer ~~is~~
~~prevented by~~ further comprises defining said portion as being
occupied.

23. (Currently Amended) A method of formatting an optical disc
having a multi-layered storage space comprising at least a first
storage layer and a second storage layer below the first layer,
access to the second storage layer being through the first storage
layer, the method comprising the steps of:

[[-]] defining logical disc addresses for logical blocks of the
storage space;
[[-]] defining a reserved storage space in the storage space;
[[-]] defining a write history table and storing the write
history table in a predetermined portion of the storage space,

~~preferably insaid predetermined portion of the storage space being~~
a predetermined portion of the reserved storage space,~~;~~ and
[[-]] writing into the write history table, in respect of all
blocks of the storage space, a code having a first value indicating
that these blocks are still maiden.

24. (Currently Amended) A multi-layered optical disc having a
multi-layered storage space comprising at least a first storage
layer and a second storage layer below the first layer, ~~access to~~
~~the second storage layer being through the first storage layer,~~ the
disc containing a write history table in a predetermined portion of
the storage space, preferably in a predetermined portion of the
reserved storage space, the write history table containing, in
respect of the physical disc addresses of each block, at least of
those blocks which are physically located in the first storage
layer, a code having a first value in respect of blocks which are
maiden and a second value in respect of blocks which have been
written at least once.

25. (Currently Amended) A disc drive system, capable of
controlling a rotating means and a light beam generating means of
an optical disc drive, suitable for writing a multi-layered optical
disc having a multi-layered storage space comprising at least a
first storage layer and a second storage layer below the first
layer, the disc drive system being adapted to perform ~~a formatting~~

~~operation in accordance with the method of formatting as claimed in~~
claim 23.

26. (Currently Amended) A disc drive system, capable of controlling a rotating means and a light beam generating means of an optical disc drive, said disc drive system being suitable for writing a multi-layered optical disc according to as claimed in claim 24, the disc drive system being adapted to read the write history table from said disc and to store said write history table into a memory.

27. (Currently Amended) ~~A The disc drive system according to as claimed in~~ claim 26, wherein said disc drive system is also adapted to communicate the write history table to a file system.

28. (Currently Amended) ~~A The disc drive system according to as claimed in~~ claim 26 or 27, the disc drive system being adapted, at least after having written a maiden portion of said first storage layer, to write into the write history table, in respect of all blocks which have been written in the writing operation, a code having a second value indicating that these blocks have been written at least once.

29. (Currently Amended) A file system, designed for communicating with a disc drive system of an optical disc drive, and for handling the writing of user files to the disc and the

reading of user files from the disc, the file system being provided with a memory, being adapted to receive from a disc drive system according to claim 27-~~or 28~~, a write history table and to store this write history table into said memory, and also being adapted to take the write history table into account when choosing logical disc addresses in response to a command to store a file.

30. (Currently Amended) ~~A The file system according to as claimed in claim 29, wherein said file system also being is~~ adapted to define a system file with a predetermined name, such that this system file occupies all logical addresses of blocks which are physically located in said second storage layer.

31. (Currently Amended) A multi-layered optical disc having a multi-layered storage space comprising at least a first storage layer and a second storage layer below the first layer, access to the second storage layer being through the first storage layer, the disc containing a file allocation list in a predetermined portion of a reserved storage space, the file allocation list containing at least one system file with a predetermined name, of which it is specified that it occupies all blocks which are physically located in the second storage layer and are located below a maiden portion of said first storage layer.

32. (Currently Amended) ~~A The file system according to claim 30,~~ designed for handling the writing and the reading of user files

to or from a multi-layered optical disc having a multi-layered storage space comprising at least a first storage layer and a second storage layer below the first layer, access to the second storage layer being through the first storage layer, the disc containing a file allocation list in a predetermined portion of a reserved storage space, the file allocation list containing at least one system file with a predetermined name, of which it is specified that it occupies all blocks which are physically located in the second storage layer and are located below a maiden portion of said first storage layer~~disc according to claim 31, also wherein said file system is further adapted, after a write operation, to receive from the disc drive system the updated write history table and to update the file allocation list accordingly with respect to said system file with a predetermined name, such that logical addresses of blocks which are physically located in a portion of said second storage layer located below said written maiden portion of said first storage layer are removed from said file allocation list.~~

33. (Currently Amended) ~~A The method according to as claimed in any one of the claims 1 to 3, comprising wherein said method further comprises the steps-step of:~~

~~_____~~defining a write allowability table comprising in respect of each block, that is, at least in respect of the blocks physically located in the second storage layer, a code indicating whether or not it is allowed to write in such block, of setting the

code to a first predetermined value in respect of those blocks in the second storage layer which are located below a maiden portion of the first second storage layer, a write operation to a block being prevented if the corresponding code in the write allowability table has said first predetermined value.

34. (Currently Amended) ~~A The method according to as claimed in~~ claim 33, wherein, after a maiden portion of said first storage layer has been written, in respect of those codes in the write allowability table which correspond to blocks located below said written maiden portion of said first storage layer, the value is set to a second predetermined value indicating that writing is now allowed.

35. (Currently Amended) ~~A The disc drive system according to any one of the claims as claimed in claim 25 to 28, wherein the disc drive system being is~~ adapted to calculate a write allowability table on the basis of the write history table, and to communicate said write allowability table to a file system.

36. (Currently Amended) A file system, designed for communicating with a disc drive system of an optical disc drive and designed for handling the writing of user files to the disc and the reading of user files from the disc, the file system being provided with a memory and being adapted to receive, from a disc drive system ~~according to as claimed in~~ claim 35, a write allowability

table and to store this write allowability table into said memory, and also being adapted to take the write allowability table into account when choosing logical disc addresses in response to a command to store a file.

37. (Cancelled).